Questions and Answers - RFQ-RT-06-00036

Question 1: Concerning Tasks 2 and 3, how close together are the body shops? Can a person easily walk between them?
Answer: The shops are within an area which is 3 miles long and about a half mile wide, but most are in about 4 clusters. A person can easily walk between the shops within a cluster.

Question 2: Concerning Task 3, how many VOCs will the EPA select? (If you do not know a specific number, can you provide an estimated range i.e. <10?)
Answer: The minimum VOCs to be included are toluene, ethylbenzene, xylene, MEK, butyl acetate, and benzene. However, we will consider other suggested compounds (e.g., n-butanol, acetone, n-butyl Acetate, and p-chlorobenzotrifluoride) in reviewing the offeror's technical approach. EPA would like data for both paint-related VOCs and a representative set of 12 or more VOCs that are indicators of other urban sources of VOCs (e.g. from mobile sources, dry cleaners, commercial, and industrial operations) in and around Lawrence to be able to attribute how much of the paint-related VOCs are coming from the shops.

Question 3: Which VOCs will the EPA select? (Do you know some specific VOCs the EPA is interested in? Does the EPA want a suggested list of VOCs in the proposal?
Answer: See response to Question 2.

Question 4: Are there 2 (total for the project) continuous sampling with portable GC locations or are there 2 locations for each shop?
Answer: There will be 1 or 2 portable continuous total VOC/organic samplers for the project (see response to Question 55). These will not be associated with any particular shop, but will be carried around the area upwind and downwind to understand patterns of outdoor VOC concentrations near the shops.

Question 5: Concerning Task 5, does the EPA have specific statistical analysis requirements?
Answer: In addition to reporting basic summary statistics for the main data elements, conventional statistical analysis and interpretation of the data necessary to address the main objectives of this study are required.

Question 6: Concerning Task 5, does the EPA want a suggested list of statistical analyses in the proposal?
Answer: A general overview or a brief description of the proposed suggested statistical analysis approach is required to be addressed in the offeror's technical approach.

Question 7: Where will the planning meeting take place (what city – Boston, Lawrence, RTP)?
Answer: The meeting will take place in Lawrence, or in Boston (EPA Region 1 office) or Chelmsford, MA (EPA Region 1 laboratory). A meeting at the latter two locations will include a site visit to Lawrence.

Question 8: Is there any flexibility on the sampling dates? (There is a major industrial hygiene conference May 13 – 18.)
Answer: There is some flexibility, but the monitoring must be completed within a few weeks of those dates. Offerers should address proposed sampling dates in their technical approach.

Question 9: Can data from this study be used by the contractor in publications or as preliminary studies for grant proposals?
Answer: EPA will develop a final report, which will be available to the public. The contractor may use any data included as long as proper credit is given.

Question 10: Would another agency's overhead rate for a offeror apply to this project or does EPA use a different standard overhead rate for these type of contracts?
Answer: Award based on this solicitation will be on a firm fixed price basis, not a cost plus fixed fee basis. Specific constituent overhead rates will not be evaluated and are not required to be provided.

Question 11: Concerning the time period for sampling, it appears from the background and deliverable schedule that all 9 shops are to be sampled during the same 1 week. Is this the case for both period 1 and period 2?
Answer: See the answer to Question 12.

Question 12: Concerning the time period for sampling, is it necessary to do all 9 shops in 1 week or could shops be spread across weeks? This would add substantially to the budget since many more field staff would be needed to ensure that all shops were sampled each day for the full 5+ hours of integrated sampling (plus all the auxiliary samples that need to be collected).
Answer: Since EPA prefers to model all shops together, we prefer monitoring all shops at the same time. If this is not possible for logistical reasons, EPA will consider staggering the monitoring, but a strong case for this must be presented in the proposal. EPA will use the same method for both periods. Also, see the response to Question 55.

Question 13: Experience in auto body shops (over 45 shops) and published literature support the perspective that painters spend only 10% of their workday spray painting (on average…4-15% covers the 25-75th percentile) with an additional 5% of the workday on average spent mixing or cleaning equipment. Based on extensive task sampling during spray operations in autobody shops (n=166) spraying lasts an average of 15 minutes with a minimum of 1 minute for touchups and a maximum of 67 minutes for full body sprays. Mixing and cleaning operations are very short (several minutes). Many days there is no painting at all in many autobody shops. Often there are only a couple of spray jobs interspersed across the day. These jobs can vary in amount of material applied as well as the type of paint used (composition). The current strategy is to sample each shop for 7 consecutive days, collecting integrated samples for 5-8 hours. Is sampling to be started before any painting is done each day and then run for 5-8 hours, regardless of activities? This is the only way to coordinate all of the inside and outside sampling temporally. However, this will significantly dilute the concentration associated with any spray operation if most of the time is non-spray time, and in some cases samples will be collected on days when no painting is done.
Answer: EPA plans to monitor for a specified period of time that includes spray painting operations. EPA prefers to monitor during the same time of day, but this may be varied depending on the work schedule at the individual body shop, and will need to be coordinated with the shop owners. The autobody shops will keep a record of the number of cars spray painted during the monitoring period.

Question 14: Concerning Question 13, this set time period for sampling also means that a day with 3 spray jobs and a day with 1 spray job could have different concentrations simply due to the volume of material applied. This will make comparisons of exposures associated with the use of different spray gun types difficult since differences will be masked by the volume of paint applied on a given day. Is there any plan for EPA personnel to collect data on volume of paint sprayed and amount of hardener used, or to collect paint composition information on the paints used during each sampling day?
Answer: The autobody shop owners will be asked to provide this information under a separate purchase order that will be coordinated with the one resulting from this solicitation.

Question 15: Could the sampling strategy be adjusted so that it is based on exposure during spray/mixing tasks? This alternate strategy would permit association of exposures in and out of booth and out of stack with an amount of paint/hardener applied during a spray job. This relationship between volume used and emissions could then be used to model ambient exposures based on the volume of paint used by each shop (information shops can easily supply).
Answer: EPA will consider alternate strategies, but these must be strongly supported in the technical approach submission, and will be evaluated under Evaluation Criteria 1.

Question 16: Will EPA be recruiting the Lawrence autobody shops and ensuring access inside the shops during working hours?
Answer: This will be done under a different purchase order to be coordinated with the one resulting from this solicitation.

Question 17: As written, the current plan requires 7 consecutive days of sampling in the body shops. Most shops are not open on Sunday, some may not be open on Saturday. Will EPA be ensuring access inside shops when they are not working?

Answer: **EPA will not require monitoring in the shops when they are closed. EPA may ask for monitoring in the neighborhoods, but this will not involve entering the shops.**

Question 18: Are the up to 6 meteorological stations (MET) to be specified by EPA around EACH shop on each sampling day? If not, how many MET locations are to be set up in relation to each shop sampled?
Answer: **The MET stations should be set up to cover the area, not set up in relation to any particular shop. EPA is requesting separate price quotations for different scenarios, including different numbers of MET stations. See the answer to Question 55.**

Question 19: The SOW requests that a "continuous, portable, low cost, total organic sampling GC device" be placed upwind and downwind for 5 hours per day from the auto body clusters. How many "clusters" are there?
Answer: **For planning purposes consider two "clusters." We expect the portable continuous total VOC/organic sampler(s) to be carried to different locations during the monitoring period.**

Question 20: Task 3B requests collection of 1-2 outdoor samples near residential areas for 5 hours for each of the 9 shops. Will EPA be recruiting residents where samplers can be placed in a protected environment or will access to sites and protection and observation of outdoor samplers be the responsibility of the contractor?
Answer: **EPA will make the residents aware of the value of the samplers. It will be the Contractor's responsibility to take the necessary measures for security.**

Question 21: What are the target isocyanates? HDI monomer? HDI polyisocyanate (separate measurements for HDI biuret and isocyanurate?)?, IPDI monomer? IPDI polyisocyanate? other isocyanate species present in auto body paints?
Answer: **At a minimum, HDI Monomer. If we can obtain total HDI, this would be preferred. Offerors should address this issue in their technical approach.**

Question 22: What specifically are the target VOC's?
Answer: **See question 3.**

Question 23: Are QA blanks and duplicates (generally 10% each) to be included in pricing?
Answer: **Yes.**

Question 24: The descriptions for tasks 2 and 3 and the deliverable schedule says raw HDI/VOC data is to delivered within 5 working days of completion of the sampling for each sampling period in a format to be used to input into a dispersion model. What is meant by raw data and what format would be required for these integrated samples so that could be used in a dispersion model?
Answer: **"Raw data" refer to the preliminary draft data from the monitors prior to the final data report with quality assurance review and signature. After the raw data are obtained, we expect the contractor to provide a quality assured final data report. EPA will need the final data in concentrations (ug/m3, etc). For dispersion modeling purposes, we will also need an emission rate (mass per unit time).**

Question 25: Concerning the preceding question, how is this different from task 5 which covers the provision of analyzed data? The deadline for provision of air concentration data is not until approximately 2 months after sampling and includes provision of air concentrations for each monitor for each day?
Answer: **Task 5 refers to the final quality assured data.**

Question 26: Regarding the sampling protocol, for isocyanate sampling: multiple spray jobs in a booth can be accommodated on a single sample if required. To date, no stack sampling of isocyanates has been reported in the published literature. It is unlikely that samples for more than a short period can be done without breakthrough. Can costs for preliminary work to develop a method for sampling isocyanates from stacks be included in the cost?
Answer: **Based on our preliminary study, we do not expect breakthrough to be a problem with isocyanates. The contractor may, in their technical approach, discuss any preliminary work that they wish the EPA to consider in evaluated their submission.**

Question 27: Regarding the sampling protocol, for VOC sampling: the SOW stipulates the use of canisters or

Tenax tubes. Solvent concentrations within spray booths are high. Experience sampling spray operations within the booth using sorbent tubes has found that thermal desorption tubes are overloaded for many compounds with a 5 minute sample. Charcoal tubes can be used for longer, for example a whole spray job, without overloading. Can activated charcoal tubes be used for sampling inside the spray booth?
Answer: The SOW does not stipulate the use of canisters or Tenax tubes, but mentions them as examples of methods that could be used. The same integrated VOC collection method should be used for all monitoring locations (indoor and outdoor); however, collection volumes, sampling rates, or other sampling parameters within the same method could be adjusted to prevent overloading.

Question 28: Concerning the Question no. 29, can other multi-bed VOC thermal desorption tubes, successfully used in previous autobody sampling work, be used for outside the booth sampling?
Answer: See response to Question 27.

Question 29. The SOW requests that a "continuous, portable, low cost, total organic sampling GC device" be placed upwind and downwind for 5 hours per day. Since the request is for total VOC's it would seem that a GC is unnecessary. Does the use of a non-GC total VOC photoionization or FID device meet this request?
Answer: We will consider any device that is portable and can do total VOC real time monitoring. It does not have to specifically be a portable GC device.

Question 30: Are you specifying any test analytical methods?
Answer: We will consider any EPA approved method. The offeror's proposed method should be stipulated in their technical approach.

Question 31: What are the EPA selected VOCs that you want to test for in task 3a?
Answer: See Question 3.

Question 32: Do you have a preferred format in Task 3b.
Answer: ASCII or an Excel Spreadsheet is preferred.

Question 33: Does the Meteorological data need to be collected on 10 meter towers or at ground level?
Answer: Ground level.

Question 34: What profile are you requesting in Task 5?
Answer: A complete list (including date, time, location, and concentration) of all samples collected over the study period.

Question 35: Are the initial meetings in Boston or by teleconference or in RTP?
Answer: See Question 7.

Question 36: Would the EPA prefer real-time HDI monitoring instead of, or along with the analytical sampling?
Answer: We are not aware of real-time HDI monitoring devices, but invite the contractor to consider those, if available, instead of or in addition to integrated HDI monitoring. This should be addressed in the offeror's technical approach.

Question 37: Does the EPA have a preferred analytical method for HDI?
Answer: No, the contractor may use any EPA, NIOSH, or OSHA approved method. The selected method must provide adequate sensitivity, accuracy, and precision for detection in a significant number of the samples, and should be included in the offeror's technical approach for evaluation by EPA.

Question 38: Is there a required analytical detection limit or reporting limit for HDI sampling and analysis?
Answer: EPA prefers as low a limit as possible. Offerors should address in their technical approach the analytical detection limits/reporting limits they can achieve.

Question 39: Should the contractor measure the flow rate of the spray booth vent stacks?

Answer: **Yes. If for any reason the offeror believes it is not feasible to obtain this measurement, the offeror should address this issue in their technical approach.**

Question 40: Should the contractor record any of the auto body operational parameters? Examples; number of pieces sprayed, spray deviation, type of paints or coating materials, etc.
Answer: **This will be conducted under a separate purchase order to be coordinated with the monitoring of the order resulting from this solicitation.**

Question 41: Please define the last sentence in Task 2 "samples will be collected in stages. (This also pertains to Task 3A.)
Answer: **The first stage will be before the laser guns are in use. The second will be after. Also, see Questions 12 and 55.**

Question 42: Will EPA determine which shops will be sampled and will the same shops be sampled for the entire seven day sample period'? (This also pertains to Task 3A.)
Answer: **Yes and yes.**

Question 43: Concerning Task 3A, what is the list of EPA selected VOCs?
Answer: **See Question 3.**

Question 44: Concerning Task 3A, is there a required analytical detection limit or reporting limit for the VOC sampling and analysis?
Answer: **No, but we prefer sufficient sensitivity to provide quantifiable numbers. Offerors should address the analytical detection limits and reporting limits they can commit to achieving in their technical approach.**

Question 45: Concerning Task 3B, will the EPA select and obtain permission to use the residential areas for outdoor sampling?
Answer: **This will be done under a different EPA-issued order.**

Question 46: Concerning Task 3B, who will be responsible for the security of sampling equipment in the residential areas (This also applies to Task 4)?
Answer: **See Question 20.**

Question 47: Concerning Task 3B, will the contractor be required to construct any security fencing, sample platforms, etc. at the residential areas?
Answer: **While EPA does not believe security fencing will be needed, the contractor is responsible for all security measures. If the contractor feels security fencing is needed, the contractor shall construct it. Also, the contractor shall be responsible for constructing any necessary support structures.**

Question 48: Concerning Task 3B, will electrical power be available at the residential areas and who will pay for power usage?
Answer: **Electrical power will not be available. The contractor must provide their own power source or battery-operated equipment.**

Question 49: Concerning Task 3B, is a portable gas chromatograph absolutely required, or would standard portable VOC monitors (e.g., PID-based monitors) be acceptable? And at what detection limit for total VOCs?
Answer: **See Question 29. We are not specifying a detection limit for VOCs, but prefer the best obtainable. Offerors should address the detection limit they can achieve in their technical approach.**

Question 50: Concerning Task 3B, will EPA select and obtain permission to use the upwind and downwind locations for total VOC monitoring?
Answer: **Yes; this will be done under a different EPA-issued order.**

Question 51: Concerning Task 4, how will the meteorological monitoring locations for Task 4 be chosen? How/when will the contractor know how many stations will be needed? i.e. Task 4 "No More than up to 6 stations".
Answer: **See Question 55. The precise deployment will be discussed at the initial meeting.**

Question 52: Concerning Task 4, will electric power be available and who will pay for power usage?
Answer: **See Question 48.**

Question 53: Concerning Task 4, who will be responsible for meteorological equipment security?
Answer: **Residents will be aware of the value of the equipment, but security shall be the responsibility of the contractor.**

Question 54: Should the contractor assume that all sampling and monitoring equipment will be removed after the first period of sampling?
Answer: **EPA expects equipment used outside of the shops will be removed between periods. EPA may be able to make arrangements with the owners of the shops to store the equipment, but this can not be assumed.**

Question 55: Shall the bid costs be based upon the maximum number of samples proposed and maximum number of sampling and monitoring locations?
Answer: **As a reminder, EPA is requesting firm fixed price quotations. EPA is requesting that offerors provide a price (with each scenario's total price broken down to the constituent prices for each SOW-identified task and subtask) for each of the below four scenarios. (The below table is also reflected in the Scenerio Price Spreadsheet provided on the EPA's website for this solicitation). EPA reserves the right to select any of the four scenarios for award, based on budgetary considerations. For evaluation purposes only, the offeror's total prices for each scenario will be added, and the grand total evaluated.**

Scenarios for Monitoring in Lawrence*

Scenario	# Shops	# inside HDI monitors per shop	# inside VOC monitors per shop	# nearby outdoor integrated VOC monitors	# portable continuous VOC monitors to be moved around outside shops	# Days per monitoring round*	# Meteorological Sites
1	4	1	1	2	1	5	2
2	4	2	2	4	1	5	2
3	6	3	3	8	2	7	4
4	9	3	3	9	2	7	6

* For each scenario there will be two rounds of monitoring, before and after the deployment of laser guns.

Question 56: How many meetings should the contractor include in the bid?
Answer: **The offeror should plan on no more than two meetings. The location(s) may be Boston (EPA Region 1 office), Lawrence, or Chelmsford (EPA Region 1 laboratory), MA. Other communication may be done by telephone and email.**

Question 57: Will there be at least one meeting at the Lawrence MA sample location prior to mobilization of manpower and equipment?
Answer: **EPA expects there will either be a meeting in Lawrence or a site visit to Lawrence in conjunction with a meeting in Boston or Chelmsford.**

Question 58: What is the preferred list of target VOC compounds?
Answer: **See Question 3.**

Question 59: What are reporting limit/detection limit goals?
Answer: See the answers to Questions nos. 38 and 49.

Question 60: Operating hours for auto body shops?
Answer: This will probably vary. It is reasonable to assume 7:30 AM to 5:00 pm as the operating hours.

Question 61: QAPP format/template will conform to what requirements? EPA Region 1 format?
Answer: The QAPP will conform to EPA Region 1 guidance, which is consistent with HQ QAPP guidance, EPA QA/R-5 (QAPP requirements) and EPA QA/G-5 (QAPP guidance). This can be found at www.epa.gov/quality1/qa_docs.html.

Question 62: What is desired method for total VOC measurements in ambient air? EPA Reference Method?
Answer: EPA is not stipulating a particular method. Offerors should address the method(s) chosen and other relevant information in their technical approach.

Question 63: Up to six meteorological stations may be needed in study area. Will siting of these stations need to conform to EPA siting criteria? Does EPA anticipate roof top type locations or will mounting on self standing tower like structures (10 meters) be required? Has EPA already selected the locations for these stations?
Answer: Siting will conform to EPA criteria. EPA does not anticipate any 10 meter or rooftop locations. The locations have not yet been determined.

Question 64: Do total estimated numbers of samples identified in RFQ include QA/QC samples? If not what should be assumed for types and numbers of QA/QC samples?
Answer: See the Question 55 response, where the different scenarios require different numbers of monitors in multiple shops over multiple days. Each stationary monitor will collect one sample per day, (either HDI, or total VOCs which will be speciated - see response to #3). QA/QC samples have not been included in the total number of samples for each scenario, as shown under Question no. 55 response.

In general, QA/QC would include field blanks, field controls, lab blanks, lab controls, and duplicate samples. Co-located samples can also be used. The difference between collocated and duplicate samples is that collocated are generally collected at a different flow rate and duplicates are collected at the same flow rates. At a minimum field blanks, field controls (spiked media) and duplicates should be collected. Field blanks would be unused media taken from the batches used in the field and labeled, returned for analysis. Field controls would be unused media spiked with a known mass of the compounds of interest...can be done in the field or in the lab. Duplicates are exposed media collected side by side with another sample in the field. Lab blanks would basically verify that the background of the sampling media under ideal conditions (no exposure to the field).

As a general rule minimum QC samples are 5% FBs, 5% FCs, and 5% dups are collected or a minimum of 3. Example: if 30 samples are collected there would be 3 FBs, 3FCs and 3 dups. If 60 samples are collected there would be 3 FBs, 3FCs and 3 dups as well. If 100 samples were collected, there would be 5 FBs, 5FCs, and 5 dups. However with that said, the more the better. There should also be analytical procedure blanks, and method recovery spikes that are analyzed with each sample " batch".

Question 65: How many ambient locations will be used for continuous VOC monitors? How many monitors will be needed in simultaneous operation on a daily basis?
Answer: We would like 1 or 2 portable continuous VOC monitors used for the project. These will not be associated with any particular shop, but will be carried around the area by the contractor to detect locations with unusually high VOC concentrations. The total number of monitors will be determined by the scenario selected (see Question 55).

Question 66: Location of initial and all additional meetings with EPA. How many total should be assumed and where will these take place? RTP NC or EPA Boston or other location?
Answer: See Questions 56 and 57.

Question 67: Has EPA identified the actual locations of all monitoring sites? Has the permission of the property owner been secured to access property as well as for siting of monitoring equipment?

Answer: Neither of these has yet occurred, but both will be done prior to the beginning of sampling.

Question 68: Is HDI the only isocyante they want or HDI, MDI and others or a total TRIG (total reactive isocyantes group) or TRIG?

Answer: See response to Question No. 21.

Question 69. Is all sampling to be done concurrently during the week at the 9 shops?

Answer: See response to Question No. 12.